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We Can't See the Forest for the Trees

The Environmental Impact of Global Forest Certification Is Unknown

The role of private instruments such as certification systems in global environmental governance is continuously expanding. Therefore it is becoming increasingly important to know the environmental impact of these schemes. However, the sustainability impact of forest certification standards is largely unknown. Although much academic and policy-oriented research has been done, most analyses are desk studies – a paper reality has been created. Therefore we propose a global multi-disciplinary assessment to evaluate the environmental, social and economic impacts of sustainability certification.

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We Can't See the Forest for the Trees. The Environmental Impact of Global Forest Certification Is Unknown
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In the face of systemic transformations of the earth system and mounting evidence that a number of planetary boundaries have already been crossed (Rockström et al. 2009), devising effective and equitable governance arrangements is a key challenge for policy makers (Biermann et al. 2012). It is widely accepted that problem solving has to be pursued at all levels of the political system, from local to global, and beyond the confines of the state and public policies.

In this context, sustainability certification is often advocated as a panacea for various environmental externalities, and is becoming an institutionalized governance approach to sustainable development. Certification standards have been developed for a wide variety of commodities, including timber, fisheries, coffee, cocoa and palm oil, aiming to improve their environmental and/or social performance. In this context, certification is regarded as one of the primary drivers of private or hybrid (public-private) market-based sustainability governance (Cashore 2002, Pattberg 2005).

Nevertheless, the effectiveness of certification standards is increasingly contested. While the case of marine fisheries certification is a recent prominent example (Jacquet et al. 2010), we contend, however, that the problem is much broader. In other areas, such as forestry, the sustainability effectiveness of certification is also debated. It seems that after the substantive increase in certification over the last two decades, the time has now come to critically reflect on the real and measurable added value of certification for the sustainability transition.

Global forest certification standards, like those developed by the Forest Stewardship Council (FSC) or the Programme for the Endorsement of Forest Certification Schemes (PEFC), are among the oldest sustainability standards worldwide. Despite this relatively long experience with forest certification, no systematic global assessment of the sustainability impact of forest-related certification standards has been performed until today. The available knowledge is scattered and incomplete, providing only limited guidance for policy makers.

Building on earlier literature reviews (Auld et al. 2008, Karmann and Smith 2009, Clark and Kozar 2011), we have examined over 40 academic and 50 policy-oriented assessments of forest certification standards. We have studied assessments from both the natural and the social sciences. The article is based on this review and the decade-long experience in the forest certification debate of both authors.

We identify the following key challenges:

- to substantially improve the current knowledge base on the effectiveness of (forest) certification standards requires going beyond desk-based assessments;
- to fully comprehend the governance effects of (forest) certification standards, it is necessary to analyze the broader environmental, economic and social impacts beyond standard-uptake (the number of producers becoming certified) and compliance, and

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- to place (forest) certification standards in the broader context of current transformations of global environmental governance from state-based to private and hybrid forms of governance (Biermann and Pattberg 2008), more attention should be directed towards the political nature of existing assessments and the hidden agendas of the actors involved.

In the following, these challenges are discussed in more detail. Consequently, we argue that a global unified assessment of sustainability certification standards is urgently needed.

The Paper Reality of Forest Certification

Despite the relatively large number of evaluations that have been published on the environmental effectiveness of forest certification, the most striking observation is the fact that the large majority of studies are desk-studies. We only found a few recent scientific field studies that measure the effectiveness of forest certification on the ground or use datasets of primary data for their evaluation (Johansson and Lidestav 2011, Elbakidze et al. 2011, Sverdrup-Thygeson et al. 2008).

Forest management can be certified according to environmental, social and economic criteria. The impact of forest certification on a sustainable development is however unknown. The picture shows a forest in Vietnam.

All other studies reviewed for this forum incorporate only indirect evidence from the field. A popular research method in this context is studying the published audit reports, which include so-called *Corrective Action Requests,* the issues on which the forest manager has to improve in order to become or remain certified. As a consequence, however, this method directs attention towards the FSC, since it publishes more information on individual audits than its direct competitor, the PEFC (Hirschberger 2005). Another handful of publications is predominantly based on interviews and/or questionnaires among forest managers and other experts, and incorporates only information on perceived rather than actual on-the-ground impacts (e.g., Cubbage et al. 2010, Gomez-Zamalloa et al. 2011, Savcor Indufor Oy 2005).

While a number of studies (Cubbage et al. 2010, Gomez-Zamalloa et al. 2011, Schlyter et al. 2009) compare different certification schemes, little is known about the differences among the standards on the ground. Moreover, exact sciences and social sciences hardly ever collaborate in forest certification evaluations, although forest certification incorporates economic, social and ecological issues, necessitating a multi-disciplinary approach.

While a majority of studies cautiously conclude that certification has some positive impacts (Sverdrup-Thygeson et al. 2008, Cubbage 2010, Gulbrandsen 2005, Gullison 2003, Newsom and Hewitt 2005, Newsom et al. 2006, Nussbaum and Simula 2004, Rametsteiner and Simula 2003, Van Kuijk et al. 2009, WWF 2005), most researchers agree that additional research is needed, and that information on the effectiveness of certification standards on the ground is lacking (Auld et al. 2008, Ozinga 2004, Peña-Claros et al. 2009). Clark and Kozar (2011), authors of a meta-analysis on the impact of forest certification on sustainable forest management practices, conclude: "Despite their existence for more than a decade, little is known about how well forest certification systems achieve their SFM [sustainable forest management] goals."

Effects Beyond Compliance

Besides a few exceptions (e. g., Marx and Cuypers 2010), studies that have looked at the effectiveness of certification standards in and beyond forestry focus on questions of standard-uptake, rule-implementation, compliance, and the institutional complementarities between international and domestic settings of certification (e. g., Mattli and Büthe 2003). Analyses focusing on the rate of standard-uptake and rule-compliance run the risk of concluding that certification standards as examples of transnational rules and norms are epiphenomena and can largely be neglected in accounts of world politics.

Following the international regime literature on effectiveness and compliance of intergovernmental treaties, asking questions about rule-implementation and compliance seems to be a justi-

fied and straightforward approach (Miles et al. 2002). However, this strategy has a number of weaknesses. First, the focus on the direct effects of certification standards potentially overlooks substantial effects that are normative, cognitive, structural as well as unintended. As a result of this blind spot, scholars may systematically underestimate the importance of certification standards in world politics. And second, as a consequence of this narrow view, the question of variation in effectiveness of (forest) certification standards has largely been confined to the question of firm-level choices when accounting for different standard-uptakes and growth rates, while the answer may lay elsewhere (Kollman and Prakash 2001), for example in national forest-related policy.

To overcome this limitation of previous assessments, research efforts should prioritize the following aspects:

- measuring the effectiveness of certification standards at local (i. e., Forest Management Unit), landscape and national levels;
- including both direct (e. g., on-the-ground) and indirect (e. g., normative) effects of certification, as well as analyzing the unintended consequences with regard to economic, social and environmental indicators (Pattberg 2012);
- comparing the effectiveness of different standards within and across geographical regions;
- the realization that the effectiveness of certification cannot be assessed without taking national and sub-national legislation into account, and
- the question of how to separate the influences of certification standards from other factors, such as macro-economic developments or governmental policy.

The Politicized Nature of Assessments

During the last two decades, organizations involved in the forestry debate have developed into two broad coalitions, either supporting the FSC or the rival PEFC scheme. While most environmental and social non-governmental organizations (NGOs) as well as several industry actors favor FSC, forest owners and the majority of the industry – often backed-up by national governments – prefer the PEFC. Research on rival certification schemes in Europe shows that FSC is dominant in countries with public forest ownership, while PEFC leads in countries with private forest ownership (Gomez-Zamalloa et al. 2011). Over the years, the supporters of the rival schemes have been involved in a paralyzing "trench war", in which they compete for dominance of "their" scheme (Visseren-Hamakers and Glasbergen 2007).

It is important to realize that often these actors use sustainability evaluations to support their own arguments. A significant part of the evaluation literature therefore cannot be seen as objective. These policy-oriented assessments include evaluations by NGOs, industry associations, research institutes, consultancies, governments and, finally, by the standard organizations themselves. While NGO assessments predominantly focus on shortcomings and failures of certification in specific regions (Liimatainen and Harkki 2001) or compare different certification standards (Anonymous 2009, Hirschberger 2005, Ozinga 2004), industry assessments aim to show the commonalities among the schemes (Oliver 2004). The overviews provided by the certification schemes themselves advocate the sustainability of their own standard (SFI 2010, Karmann and Smith 2009).

Of particular interest are governmental assessments of the different standards that inform governmental procurement policies (TPAC 2010, CPET 2010). Many governments have set targets for buying sustainably produced timber, and therefore require an objective "yardstick" to decide which schemes comply with the government's definition of sustainable forest management. In the UK and in the Netherlands, for example, government advisory bodies decided in 2010 that both the FSC and PEFC meet their sustainability requirements, with the Netherlands currently excluding the PEFC-endorsed Malaysian Timber Certification Council (MTCC). With these government assessments, market-based governance instruments receive formal governmental recognition, thereby further politicizing certification.

Conclusion

Overall, we have to conclude that with the overwhelming number of desk-studies, a paper reality has been created in which the effectiveness of forest certification seems well-known. Some of the desk studies are, at the most, based on indirect evidence from the field. These studies, however, do not systematically assess the impact of certification on the ground, such as the long-term impacts on biodiversity. As Gomez-Zamalloa and colleagues (2011) contend with a view towards the European forest sector: "There is no recent, scientific and holistic analysis of the impacts of forest certification", a conclusion that can be generalized to the global level. We therefore must agree with those researchers (Van Kuijk et al. 2009) who have concluded that "we simply don't know" whether forest certification is sustainable.

An increasing number of actors is depending on sustainability certification, including governments, international organizations, corporations, civil society, and market-based instruments like certification are currently often preferred over governmental policy. Therefore it is of fundamental importance to remedy the existing shortcomings in our knowledge base on the sustainability of certification. Our analysis of forest certification also raises questions about the knowledge base of the sustainability of certification schemes for other products. We contend that the problem of a paper reality extends beyond forest certification.

It is high time for a globally representative assessment of the impacts of forest certification standards. This assessment should include: the environmental, social and economic effectiveness and unintended effects; contributions from the natural and social sciences; and countries in the South and North. We propose that such an analysis compares, as a minimum requirement, the effects of FSC, PEFC, and non-certified forests in each country. This research is necessary to inform the debates on the effectiveness of forest certification standards and government procure- >

ment policies. It can also contribute to the ongoing debate on the risks, opportunities, and consequences of the current institutionalization of sustainability certification as the main alternative to state-based problem solving.

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